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(54) Title: ENHANCING SILVER TARNISH-RESISTANCE

(57) Abstract: An alkanethiol, alkyl thioglycollate, dialkyl sulfide or dialkyl disulfide may be used to surface treat of an alloy of silver containing an amount of germanium that is effective to reduce firestain and/or tarnishing. The treatment has been found to further reduce tarnishing of the alloy such that a sample can be supported close above a 20% solution of ammonium polysulphide for at least 30 minutes while retaining a generally untarnished appearance. The treatment may be carried out at the end of manufacturing a shaped article to give rise to an article that will preserve its untarnished appearance both during transit to a point of sale but during subsequent display for an extended period. The invention therefore also includes a method for manufacturing a tarnish-resistant silver article, which comprises the steps of forming a shaped article of an alloy of silver containing an amount of germanium that is effective to reduce firestain and/or tarnishing, surface treating the article with an alkanethiol, alkyl thioglycollate, dialkyl sulphide or dialkyl disulphide; and introducing the article into packaging. Also disclosed for use in treating an alloy of silver as aforesaid is a water-based composition comprising a treatment agent selected from an alkanethiol, alkyl thioglycollate, dialkyl sulfide or dialkyl disulfide and a mixture of an anionic surfactant and an amphoteric or nonionic surfactant in a concentration that is effective to solubilise the treatment agent.